

LEDOKHOVICH, A.A.

PHASE I BOOK EXPLOITATION SOV/4376

Zaytsev, Vasiliy Aleksandrovich and Aleksey Aleksandrovich
Ledokhovich
Pribory i metodika issledovaniya oblakov s samoleta (Instru-
ments and Methods for Investigating Clouds From Aircraft).
Leningrad, Gidrometeoizdat, 1960. 175 p. 3,000 copies
printed.

Resp. Ed.: N. P. Fateyev; Ed.: V. S. Protopopov; Tech.
Ed.: N. V. Volkov.

PURPOSE: This book is intended for meteorologists and aero-
logists.

COVERAGE: The book describes the instruments used in air-
craft sounding to measure air temperature and humidity,
temperature pulsations in and outside of clouds, the water
content of clouds, the size of cloud droplets, and visi-
bility. The methods and techniques of conducting meas-
urements are explained. Examples of individual and com-
plex measurements are given. G. M. Zabrodskiy wrote Ch.
7 in which he describes an instrument designed by himself

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Instruments and Methods (Cont.)

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to measure cloud transparency. The book contains 83 diagrams and 21 tables. There are 99 references: 92 Soviet, 5 English, and 2 German.

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ZABRODSKIY, G.M.; ZAYTSEV, V.A.; LEDOKHOVICH, A.A.; TITOV, N.A.

Sounding at atmosphere from a TU-104 airplane. Trudy GGO no.104:
53-67 '60. (MIRA 13:10)
(Meteorological instruments) (Aeronautics in meteorology)
(Cloud physics)

41165
S/169/62/000/009/078/120
D228/D307

AUTHORS: Zaytsev, V. A. and Ledokhovich, A. A.
TITLE: Aircraft flight conditions near thick cumuli and cumulo-nimbi
PERIODICAL: Referativnyy zhurnal, Geofizika, no. 9, 1962, 25, abstract 9B148 (In collection: Issled. oblakov, osadkov i grozovogo elektrichestva, M., AN SSSR, 1961, 140-146)

TEXT: The fact that around developing Cu cong there is a warm air envelope, from a few score to several hundred meters thick with a temperature contrast of $0.3 - 3^{\circ}$ in comparison with the mean air temperature outside the cloud at the same height, was discovered by means of an aircraft shielded thermometer and a temperature pulsation meter during TV-104 (TU-104) aircraft flights near Sverdlovsk (on August 10, 1958). The warm air envelope has a thickness of 50 - 200 m and a temperature contrast of $0.3 - 0.5^{\circ}$ at the cloud's base; in its middle parts (at an altitude of 2840 m) these quantities equal 100 - 700 m and $0.5 - 3^{\circ}$ respectively. Above the cloud this

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S/169/62/000/009/078/120
D228/D307

Aircraft flight conditions ...

shell is traceable to a height of 400 - 600 m vertically and for 1500 - 2000 m horizontally. In the cloud there are upwards directed accelerations wherever the air temperature is reduced and downwards directed ones wherever it is raised. On August 19, 1958, during a flight on the Moscow-Sverdlovsk route above Cb anvils, whose upper edge was located at a height of 10,500 - 10,600 m, the air temperature, at a height of 11,000 m, over the central parts of Cb exceeded the mean temperature of the surrounding air at the same level by $3.3 - 4.9^{\circ}$. Above the anvils, especially at their edges, there were also places where the temperature was $1 - 2^{\circ}$ lower than the average temperature at the flight level. The overloads did not exceed $0.3 - 0.4 g$ when flying over the anvils. The horizontal temperature gradient reaches $1.5 - 2.0^{\circ}/km$ above the summits of Cu cong and Cb. It is supposed that near the upper boundary of Cb, above their central part, the air temperature may be $8 - 10^{\circ}$ higher in comparison with the surrounding air's temperature at the same height; and that descending air movements, caused by the break up of the summits of Cu cong, may reach 20 - 30 m/sec. Diagrams are given for the warm air envelope's disposition around Cu cong and above Cb. 3 references.

ZAYTSEV, V.A.; LEDOKHOVICH, A.A.

Thermostatic testing unit. Priborostroenie no.3:21-22 Mr '61.
(MIRA 14:3)

(Thermometers---Testing)

30001

S/531/61/000/106/001/001
D039/D113

3,5800

AUTHORS: Zaytsev, V. A., and Ledokhovitch, A. A.

TITLE: The measurement of the vertical components of wind velocities
from an aircraft

SOURCE: Leningrad, Glavnaya geofizicheskaya observatoriya. Trudy,
no. 106, 1961. Voprosy fiziki atmosfery, 62-68.

TEXT: A new device for measuring vertical wind current velocities is described and the results are given of an investigation of the horizontal and vertical distribution of these currents. The investigations were conducted during test flights over the Ladoga Lake area in 1960. The basic parts of the ИВП (IVP) vertical wind current meter, which was developed by the authors in 1960, are an air pressure receiver (Fig. 1), a manometric data unit with a potentiometer and an optical recording instrument. The operating principle of the device consists in measuring the velocity of a wind current moving downwards or upwards in relation to the aircraft. For measurements, the air pressure receiver has to be mounted on the aircraft's nose, so that one static chamber is turned upwards and the other one down-

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S/531/61/000/106/001/001
D039/D113

The measurement of the vertical components...

wards. The longitudinal axis should be parallel to that of the aircraft. The IVP meter can measure the vertical wind velocity component from a limited space. It was tested on an ~~SM~~-2 (LI-2) aircraft during three separate flights made over the above-mentioned region on June 7, 8, 10, 1960. The data unit was placed right next to the receiver and the length of the air ducts did not exceed 1 m. The inertia of the whole system, including the recording instrument, was ± 0.2 sec. and the sensitivity corresponded to 1 m/sec of the vertical current velocity. The tests also included the recording of pressure at flight level, air temperature, temperature pulsations and the aircraft overloads. All data were recorded on a phototape. The IVP meter was tested in the following way: the aircraft carried out level flight for 15-16 min at altitudes of 50, 100, 200 and 500 m from the level of the base surface, constant air speed and altitude being maintained. The flight took place over only one area, the course being perpendicular to the shoreline. Over each horizontal plane, the aircraft covered 25 km over dry land and 25 km over water. On June 8, 1960, the test was

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D039/D113

The measurement of the vertical components...

conducted from 10.00 to 14.00 hrs when a northerly wind with a velocity of 2 m/sec. prevailed. The total amount of cumuli which formed at the beginning of the test, did not exceed 5 - 6 points over dry land; over the lake only patches of thin fog at up to 50 m altitude were observed. During atmospheric sounding, the vertical currents were mainly observed over dry land up to 850 - 900 m altitude in the morning and up to 1,200 m during the day. Preliminary results of measuring the vertical currents over dry land and water on June 8, 1960, showed that the most intense gustiness occurred over dry land and over a 50-m layer of ground air, 10-15 km from the shore line. There, the maximum vertical gusts reached 11 m/sec. Towards the lake, their intensity decreased and reached only 5 m/sec along a 5-km wide band. The vertical air currents were less intense over the 50-m strip than over dry land and amounted to 1m/sec. Vertical currents over the lake were observed only up to an altitude of 500 m. On June 10, 1960, the wind direction and velocity had changed; the wind force was up to 12 m/sec. and the wind direction was from dry land towards the lake. During test flights,

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D039/D113

The measurement of the vertical components...

a considerable turbulence was observed up to 1,600 m, both over the lake and dry land. Test results showed that the vertical currents were most intense in the 50-m layer of ground air, where separate gusts reached 14 m/sec. The vertical current velocity decreased with altitude and nearness to the water surface. Over the lake, it was lower than over dry land and decreased with increasing distance from the shore and increasing lift height. The number of vertical air currents with a velocity of from 3 m/sec on, decreased with altitude and depended on the wind velocity and the base surface. Thus, on June 8, it averaged 1.5 per 1 km of the route in the 50-m ground layer, and at 500 m it was 0.13 per 1 km of the route. On June 10, the amount of vertical air currents was 7 and 1.5 per 1 km of the route, respectively at the same levels. Tests showed that the IVP meter operated completely satisfactorily. The readings of the device do not depend on the air speed of the aircraft. Combined with other instruments, it may give a clear picture of the atmospheric turbulence in the ground layer of air. ✓

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The measurement of the vertical components...

[Abstracters' note: The data of the test conducted on June 7, 1960, are not given'. There are 2 figures, 2 tables and 4 Soviet-bloc references.

Card 5/6

30001

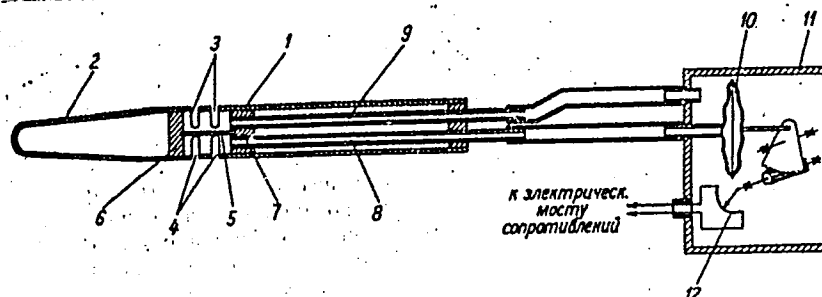
S/531/61/000/106/001/001

D039/D113

The measurement of the vertical components...

Fig. 1: Air pressure receiver of the IVP vertical air current meter

Legend: 1 - tube; 2 - nozzle; 3 and 4 - static gaps; 5 - bridge; 6 and 7 - face plugs; 8 and 9 - connecting pipes; 10 - manometric box; 11 - plastic airtight body; 12 - potentiometer



Card 6/6

VASIL'CHENKO, I.V.; LEDOKHOVICH, A.A.

Some results of sounding from an airplane in the Golodnaya Steppe.
Trudy GGO no.135:55-59 '62. (MIRA 15:8)
(Golodnaya Steppe—Atmospheric temperature)

ZAYTSEV, V.A.; LEDOKHOVICH, A.A.

Recording the water content of clouds. Trudy AANII 239:123-133
'62. (MIRA 16:8)

(Clouds) (Aeronautics in meteorology)

ACCESSION NR: AT4030533

S/0000/63/000/000/0106/0114

AUTHOR: Zabrodskiy, G. M.; Zaytsev, V. A.; Ledokhovich, A. A.

TITLE: Measuring temperature and vertical components of wind velocity from aircraft

SOURCE: Nauchnaya konferentsiya po aviatsionnoy meteorologii. Moscow, 1960.
Materialy*. Moscow, Gidrometeoizdat, 1963, 106-114

TOPIC TAGS: temperature measurement, wind velocity, humidity, air pressure, water content, visibility, condensation nucleus, atmospheric electricity, TU-104 aircraft, IL-2 aircraft

ABSTRACT: This paper is one of 13 previously unpublished reports of the 40 papers given at the Nauchnaya konferentsiya po voprosam aviatsionnoy meteorologii (scientific conference on problems of aviation meteorology) that was held in June and July of 1960 in Moscow at the Glavnoye upravleniye gidrometeorologicheskoy sluzhby* SSSR. In this paper, the authors present results from measuring the temperature, humidity and air pressure, temperature pulsation, water content and visibility in clouds, dimensions of cloud particles, condensation nuclei, the intensity of the atmospheric electrical field and the like from aircraft. In addition to these parameters, the air velocity of the aircraft, flight altitude, aircraft loads, and other values were

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ACCESSION NR: AT4030533

also determined with the aid of standard equipment. The results are presented in tables and graphs. Schematics of the electrical thermometer and the vertical measurement device are presented. Tests on specific instruments were carried out in a TU-104 and IL-2. Orig. art. has: 2 tables and 4 figures.

ASSOCIATION: none

SUBMITTED: 18Feb63

DATE ACQ: 17Apr64

ENCL: 00

SUB CODE: AS, SD

NO REF SOV: 003

OTHER: 001

Card 2/2

LEDOKHOVICH, A.A.

Electric meteorograph operated on a helicopter. Trudy GGO no.140:
71-78 '63. (MIRA 16:12)

ZAYTSEV, V.A.; LEDOKHOVICH, A.A.

Measurement of the atmospheric pressure using an electric
hypsothermometer. Trudy AANII 239:139-143 '62. (MIRA 16:8)
(Atmospheric pressure--Measurement)

ACCESSION NR: AT4043158

S/2531/64/000/154/0058/0064

AUTHOR: Zaytsev, V. A., Ledokhovich, A. A.

TITLE: Vertical currents in the boundary layer of air

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy* no. 154, Voprosy* fiziki atmosfery* (Problems in atmospheric physics), 58-64

TOPIC TAGS: meteorology, atmospheric boundary layer, atmospheric physics, atmospheric turbulence, air current, wind velocity profile

ABSTRACT: This article discusses the results of measurement of the vertical components of wind velocity from an airplane. Data are presented on the change in velocity and the horizontal extent of vertical currents with height. In 1960, the Glavnaya geofizicheskaya observatoriya (Main Geophysical Observatory) investigated the influence of the water surface of Lake Ladoga on the coastal regions. The meteorological apparatus carried aboard an LI-2 aircraft included a vertical current meter for registering the velocity of the vertical currents on an oscillogram during horizontal flight of the aircraft with a mean air speed of 220 km/hour. The plane flew

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ACCESSION NR: AT4043158

for about 15 minutes at each of the levels 50, 100, 200, 500 and 1,000 m above the underlying surface. Each flight was 25 km over water and 25 km over land. Two flights during different synoptic situations are described in detail: the wind regime and vertical temperature gradient were different (see Fig. 1 of the Enclosure). On June 8 the vertical air currents developed as a result of thermal convection, whereas on June 10 the vertical currents were the result of dynamic turbulence and convection. An analysis of these cases leads to the conclusion that ascending air currents in the surface layer of the atmosphere have a greater horizontal extent L than the descending currents. The velocity of the vertical currents is dependent on the distribution of the vertical temperature gradient and wind velocity at the earth's surface. In the case of superadiabatic gradients and a small wind velocity at the surface, the ascending currents possess a greater vertical velocity than the descending currents. When $\gamma \approx 1^\circ/100 \text{ m}$ and the wind velocity at the surface is considerable, the descending air currents have a greater vertical velocity than the ascending currents. There is a basis for assuming that, in the lower 100-m surface layer, regardless of weather conditions and the local relief, the vertical currents develop with a mean horizontal extent of about 50-60 m or as a primary series of eddies with a diameter of 100-120 m. In the atmospheric layer from 100 to 500 m there is a secondary

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ACCESSION NR: AT4043158

series of eddies with a diameter of 120-180 m, or vertical currents with a mean horizontal extent of 60-80 m. The secondary layer of eddies apparently can be carried by the general horizontal wind flow for considerable distances from the place of formation. Ascending currents move an almost identical quantity of air over both the land and the water. At heights of 50 and 100 m in the surface layer, and at greater heights in mountainous regions, the velocity of the vertical currents is close to the wind velocity at the earth's surface. Orig. art. has: 3 figures and 2 tables.

ASSOCIATION: Glavnaya geofizicheskaya observatoriya (Main Geophysical Observatory)

SUBMITTED: 00

ENCL: 01

SUB CODE: ES

NO REF SOV: 006

OTHER: 000

Card

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ACCESSION NR: AT4043158

ENCLOSURE: 011

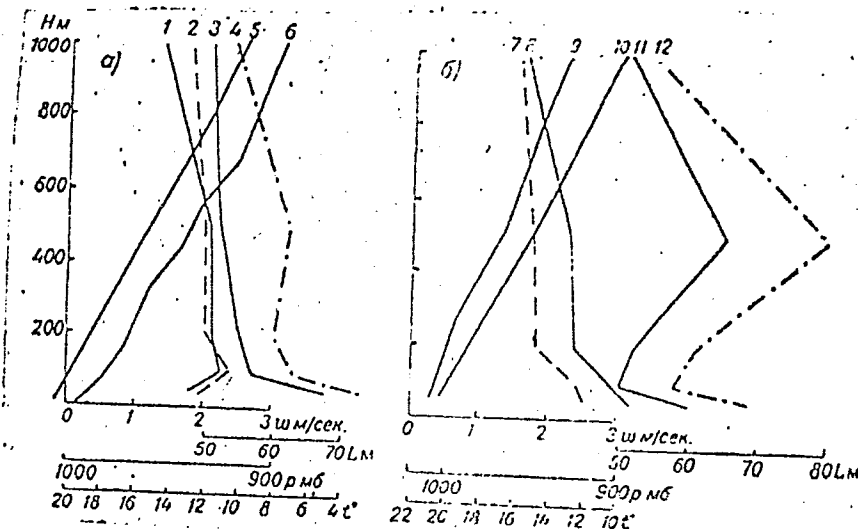


Fig. 1. Vertical distribution of pressure, temperature, velocity and horizontal extent of vertical currents on June 8 (a) and 10 (b), 1960. 1, 8 -- mean values of velocity of descending currents (m/sec); 2, 7 -- mean velocities of ascending currents (m/sec); 3, 11 -- mean values of horizontal extent of descending currents (m); 4, 12 -- mean values of horizontal extent of ascending currents (m); 5, 10 -- air pressure (mb); 6, 9 -- air temperature (degrees).

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L 10441-65

ENT(1)/FCC GN

8/2531/64/000/154/0105/0108

ACCESSION NR: AT4043164

AUTHOR: Ledokhovitch, A. A.

TITLE: Electrical balloon-borne meteorograph

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy^B, no. 154, 1964. Voprosy^B fiziki atmosfery^B (Problems in atmospheric physics), 105-108

TOPIC TAGS: electrical meteorograph, balloon borne meteorograph, atmospheric temperature measurement, atmospheric humidity measurement, atmospheric pressure measurement

ABSTRACT: An electrical balloon-borne meteorograph¹⁰ has been designed which is equipped with 1) temperature, humidity, and pressure sensors connected to a set of electrical resistance bridges; 2) a connecting cable which supplies the meteorograph with power and transmits readings to a receiver on the earth's surface; 3) a windless equipped with an electrical cable and a system of electrical contacts; 4) a power source; and 5) a recording device. The system operates on the principle that changes in nonelectrical meteorological parameters are con-

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L 10441-65

ACCESSION NR: AT4043164

verted into changes in electrical resistance. The outstanding features of the new meteorograph are said to be its electrical air temperature thermometers and organic film hygrometers, characterized by low inertia and high measurement accuracy. Furthermore, the boundaries of turbulent and inversion layers, and the upper boundaries of fog and stratus clouds, can be determined visually by the observer during the sounding process. Pressure is measured with a column of aneroid boxes, in which mechanical deformation is transmitted via a system of rods to a movable contact potentiometer. Improvements in the system will eventually make it possible to measure rapid pulsations in temperature, vertical currents, and horizontal wind flow. The system and its operation are described in detail, and the interior of the meteorograph is shown in a schematic diagram. Orig. art. has: 2 figures.

ASSOCIATION: Glavnaya geofizicheskaya observatoriya, Leningrad (Main Geophysical Observatory)

SUBMITTED: 00

ATD PRESS: 3110

ENCL: 00

SUB CODE: ES, EC

NO REF SOV: 003

OTHER: 000

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I. 10718-65 EWT(1)/ECG AFETR/AEDC(a) QW

S/2531/64/000/156/0118/0127

ACCESSION NR: AT4045159

AUTHOR: Zaytsev, V. A.; Ledokhovich, A. A. B

TITLE: Thermal nonhomogeneity and the horizontal temperature gradient of the atmosphere

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy*, no. 156, 1964. Voprosy* fiziki oblakov i aktivnykh vozdeystviy (Problems of the physics of clouds and active particles), 118-127

TOPIC TAGS: meteorology, atmospheric temperature gradient, atmospheric temperature fluctuation, near-surface air layer, meteorological inversion, cloud, jet stream

ABSTRACT: Horizontal atmospheric sounding by aircraft equipped with highly sensitive and low-inertia thermometers has shown that there is considerable nonhomogeneity in the distribution of temperature in a horizontal direction over short distances and in layers of limited thickness. This article presents the results of measurements of temperature fluctuations in the free atmosphere. Temperature fluctuation is defined here as the temperature of individual finite volumes of air at flight level which differs from the mean temperature of the medium. Data are given on the horizontal change in temperature and the value of the temperature gradient in the near-surface air layer, in inversions, over various types of clouds

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L 10718-65

ACCESSION NR: AT4045159

and in zones of jet streams. The sensitivity of the fluctuation meter, flight speed of the aircraft, rate of oscillograph paper movement and analysis method made it possible to obtain temperature fluctuation values with a minimum amplitude of 0.06° and a minimum half-wave of not less than 20 m. Fluctuations are divided into three groups: small-scale (wavelength 40-300 m; medium-scale - 300-3,000 m; and large-scale - $> 3,000$ m. Fig. 1 of the Enclosure shows some of the most typical records of temperature fluctuations for different atmospheric conditions; such cases are discussed in the text. The figure shows that the atmosphere experiences a great variety of temperature fluctuations, each of which is the result of definite atmospheric processes. Among the responsible factors, discussed in the article are: nonuniform heating of the underlying surface, a difference in density and temperature distribution (as in inversions), and heating or cooling of air as a result of condensation and sublimation of water vapor and the evaporation of condensation products in the atmosphere. It is shown that the character of the record of temperature fluctuations on an oscillogram makes it possible to determine the wavelength and amplitude of temperature fluctuations and the horizontal temperature gradient in different parts of the flight. The following tables are representative of the material discussed in the text. Table 1 - mean, maximum and minimum values of temperature fluctuations in the near-surface air layer in the warm season; Table 2 - mean, maximum and minimum values of temperature fluctuations in summer radiation inversions in Central Asia; Table 3 - mean,

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L 10718-65

ACCESSION NR: AT4045159

maximum and minimum values of temperature fluctuations over the upper boundary of different cloud types in the layer 0-200 m above the cloud; Table 4 - mean, maximum and minimum values of temperature fluctuations above and below the level of the maximum wind. Orig. art. has: 1 formula, 2 figures and 4 tables.

ASSOCIATION: Glavnaya geofizicheskaya observatoriya, Leningrad (Main Geophysical Observatory)

SUBMITTED: 00

ENCL: 02

SUB CODE: ES

NO REF SOV: 004

OTHER: 000

Card

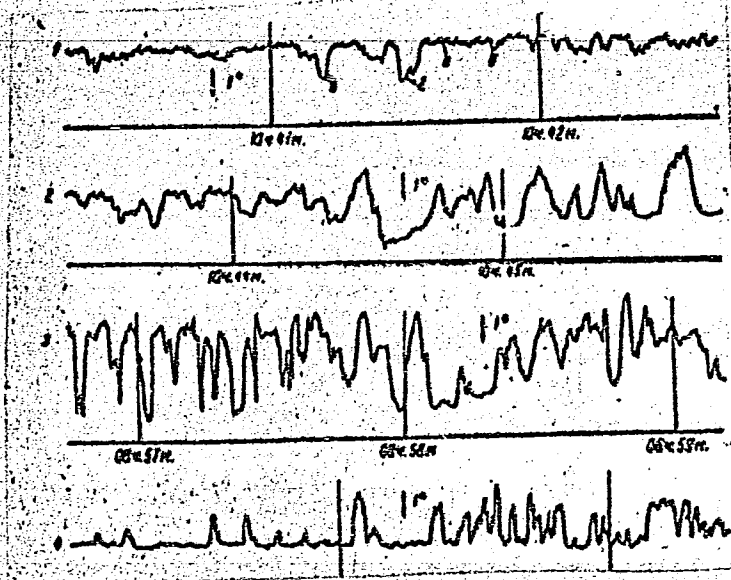
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L 10718-65

ACCESSION NR: AT4045159

Fig. 1.

ENCLOSURE:01



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ACCESSION NR: AT4045159

Continuation of Fig. 1.

ENCLOSURE: 02

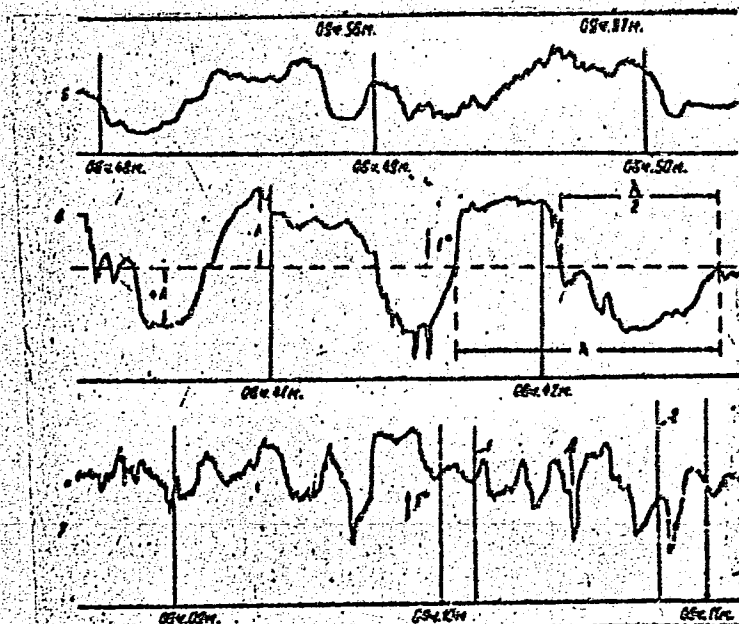


Fig. 1. Temperature fluctuations recorded under various atmospheric conditions. 1 - in near-surface layer; 2-4 - in inversions with different parameters; 5 - at upper boundary of inversion; 6 - in inversion; 7 - over Cb Inc.

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ZAYTSEV, V.A.; LEDOKHOVICH, A.A.

Measuring humidity in low temperatures. Probl. Arkt. i Antarkt.
no.19:15-21 '65.

(MIRA 18:5)

L 24456-66 EWT(1)/FCC GW

ACC NR: AT6009617

SOURCE CODE: UR/2561/65/000/019/0015/0021

AUTHOR: Zaytsev, V. A.; Ležokhovich, A. A.

33
32
BT1

ORG: none

TITLE: The problem of atmospheric humidity measurement at low temperatures

SOURCE: Leningrad. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut. Problemy Arktiki i Antarktiki, no. 19, 1965, 15-21

TOPIC TAGS: atmospheric humidity, temperature measurement, meteorologic instrument

ABSTRACT: A simplified method of measuring atmospheric humidity at temperatures below 0° with a condensation hygrometer is described. A small condensation thermohygrometer was used and the condensation temperatures were measured by small temperature steps (0.1°/sec) in cooling the mirror. The measurements show that there is no precipitation of condensates on the mirror when there is vapor saturation over the surface of ice and that the precipitation of a condensate on the mirror always occurs at 100% water vapor humidity over water at rising or falling temperatures from -70 to 0° and 0° to 70°, respectively. The data served as a basis for designing a portable, remote controlled condensation thermohygrometer (PTCTG) consisting of three parts: a temperature and humidity recorder, a measuring device, and an ac rectifier. The di-

UDC: 551.508.71

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L 24456-66

ACC NR: AT6009617

mensions of the recording, measuring, and rectifier units are $100 \times 110 \times 410$, $220 \times 340 \times 160$, and $220 \times 340 \times 160$ mm, respectively. The PTCTG apparatus was used by A. I. Voskresenskiy in 1962 at Mirnyy. The data obtained by previous investigators and the present study show that 1) the products of condensation are formed in the atmosphere at negative temperatures down to -70°C when there is maximum tension of water vapor over water; 2) water drops form and freeze into ice crystals; 3) the diameter of ice grains varies from 11 to 14 microns. Orig. art. has: 2 tables, 1 figure.

SUB CODE: 04/

SUBM DATE: 09May64/

ORIG REF: 009/

OTH REF: 001

Card 2/2dda

USSR / Plant Physiology. Photosynthesis.

I

Abstr Jour : Ref Zhur - Biol., No 1, 1959, No 1265

Author : Skripchinskiy, V. V.; Imbs, G.; Kosikova, P. G., and
Lodokhovich, M. M.

Inst : Not given

Title : Carotin and Chlorophyll Content in the Leaves of Some Fodder
and Cereal Grass Plants of Stavropol'ye During Various
Stages of Development.

Orig Pub : Materialy po Izuch. Stavropol'sk. Kraya, Fascicle 8, 61-72,
1956.

Abstract : Studies of the dynamics of chlorophyll and carotin in the
leaves of crested wheat grass, rhizomatous wheat grass,
awnless bromegrass, dwarf grass, meadow timothy, tall oat-
grass, bulbous barley, cultivated and wild rye, and winter
rye and wheat, under conditions of Stavropol'skiy Krai.
The increase or decrease in the amount of green pigments

Card 1/2

LEDOUX, L. and others.

Changes in content and metabolism of purines in nucleic acids during the aging process of an experimental tumor. p. 37

ACTA BIOCHIMICA POLONICA. (Polska Akademia Nauk. Komitet Biochemiczny)
Warszawa. Vol. 6, no. 1, 1959
Poland/

Monthly List of East European Accessions Index (EEAI), LC, VOL. 8, no. 6, June 1959
Uncl.

Ledoux, M.

Lightning arrester combined with a spark gap with arc displacement for overvoltage protection of medium-voltage protection of medium-voltage systems. Tr. from the French. p. 212.

Vol. 43, no. 4, Apr. 1954.
ELEKTROTECHNICKY OBZOR

SO: Monthly List of East European Accession, (EEAL), LC, Vol. 4, No. 9, Sept. 1955, Uncl.

POPOV, A., LEDOVA, N., starshiy ekonomist

Brigades and shock workers of communist labor at enterprises
and grain procurement stations of the Ministry of Cereal
Products of the R.S.F.S.R. Muk.-elev.prom. 26 no.2:3-5
F '60. (MIRA 13:6)

1. Ministerstvo khleboproduktov RSFSR. 2. Zamestitel' nachal'nika
planovo-ekonomicheskogo i finansovogo upravleniya
Ministerstva khleboproduktov RSFSR (for Popov).
(Grain elevators)

IFOVIT, M.A.

36462.

K Voprosu O Fliktenu-Leznykh Kerato—Kon" Yonktivitakh U Detey Rannego Vozrasta.
Voprosy Pediatrii I Okhrany Materinstva I Detstva, 1949, Vyp. 5, S. 47-50.

SO: Letopis' Zhurnal'nykh Statey, Vol. 49, Moskva, 1949

LEDOVNIK, M.A.

Tuberculous lesions of the lungs and intrathoracic lymph
nodes in children affected with osteoarticular tuberculosis.
Pediatria no.3:81 My-Je '55. (MLRA 8:10)
(BONES--TUBERCULOSIS) (LUNGS--TUBERCULOSIS)

KOTLYAROVA, R.I.; LEDOVSKAYA, A.P.

Studying the bactericidal effect of acetic acid on the plague bacillus and *Vibrio comma*; author's abstract. Zhur. mikrobiol. epid. i immn. 31 no. 10:102 0 '60. (MIRA 13:12)

1. Iz nauchno-issledovatel'skogo protivochumnogo instituta kavkaza i Zakavkaz'ya Ministerstva zdravookhraneniya SSSR.
(VIBRIO COMMA) (ACETIC ACID) (PASTEURELLA PESTIS)

KOTLYAROVA, R.I.; LEDOVSKAYA, A.P.

Increasing the virulence of *Vibrio cholerae* by means of passage in animals with lowered defense reactions. Zhur.mikrobiol.epid.i immun. 32 no.2:80-83 F '61. (MIRA 14:6)

1. Iz Nauchno-issledovatel'skogo protivochumnogo instituta Kavkaza i Zakavkaz'ya Ministerstva zdravookhraneniya SSSR. (VIBRIO COMM)

ACC NR: AP6036833

SOURCE CODE: UR/0020/66/171/002/0262/0265

AUTHORS: Zabreyko, P. P.; Ledovskaya, I. B.

ORG: Voronezh State University (Voronezhskiy gosudarstvennyy universitet)

TITLE: On the N. N. Bogolyubov-N. M. Krylov's leading approximations method of averaging

SOURCE: AN SSSR. Doklady, v. 171, no. 2, 1966, 262-265

TOPIC TAGS: approximation method, ordinary differential equation, asymptotic method

ABSTRACT: The approximate averaging method of Bogolyubov-Krylov is generalized to the case of leading asymptotic approximation. Three cases are considered. The first is to determine the order of proximity for the solutions $x(t)$ and $\bar{x}(t)$ of the pair of equations

$$\begin{aligned} dx/dt &= X_0(t, x) + \varepsilon X_1(t, x) + \dots + \varepsilon^h X_h(t, x) + \varepsilon^h \omega(t, x, \varepsilon), \\ d\bar{x}/dt &= X_0(t, \bar{x}) + \varepsilon X_1(t, \bar{x}) + \dots + \varepsilon^h X_h(t, \bar{x}), \end{aligned}$$

for $\varepsilon > 0$, with initial conditions $x(0) = \bar{x}(0) = x_0$. This is shown by means of a theorem which leads to the limiting expression

$$\lim_{\varepsilon \rightarrow 0} \sup_{x(t) \in \mathcal{M}(\varepsilon, T), \bar{x}(t) \in \mathcal{M}_h(\varepsilon, T)} \max_{0 \leq t \leq T} \frac{\|x(t) - \bar{x}(t)\|}{\varepsilon^k} = 0.$$

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UDC: 517.92

ACC NR: AP6036833

The second case deals with the pair of equations

$$\begin{cases} dx/dt = \epsilon X_0(x) + \dots + \epsilon^k X_{k-1}(x) + \epsilon^{k+1} X_k(t, x, \epsilon); \\ dy/dt = \epsilon Y_0(y) + \dots + \epsilon^k Y_{k-1}(y) + \epsilon^{k+1} Y_k(t, y, \epsilon). \end{cases}$$

For $T > 0$ the proximity between these two equations is shown to be given by

$$\lim_{\epsilon \rightarrow 0} \sup_{x(t) \in \mathcal{M}(\epsilon, T/\epsilon), \bar{x}(t) \in \mathcal{M}_k(\epsilon, T, \epsilon)} \max_{0 \leq t \leq T/\epsilon} \frac{\|x(t) - \bar{x}(t)\|}{\epsilon^k} = 0,$$

through the use of a second theorem. The third deals with the equations

$$dy/dt = \epsilon Y_0(y) + \epsilon^2 Y_1(y) + \dots + \epsilon^k Y_{k-1}(y) + \epsilon^{k+1} Y_k(t, y, \epsilon)$$

and

$$dx/dt = \epsilon X_0(x) + \dots + \epsilon^k X_{k-1}(x) + \epsilon^{k+1} X_k(y),$$

both satisfying identical initial conditions. A similar limiting expression is obtained as in case two above, with the provision that the condition (φ_k) is satisfied, if all X_i and its derivatives up to order $k-i$ are bounded. The authors express their gratitude to M. A. Krasnosel'skiy under whose guidance they worked. This paper was presented by Academician N. N. Bogolyubov on 31 January 1966. Orig. art. has: 12 equations.

SUB CODE: 12/ SUBM DATE: 28Jan66/ ORIG REF: 004

Card 2/2

LEDOVSKAYA, I. V.

Agriculture - History

Session on the history of agriculture in the U. S. S. R. I. V. Ledovskaya.
Sov. agron. 10, No. 8, 1952.

MONTHLY LIST OF RUSSIAN ACCESSIONS. Library of congress, September 1952. UNCLASSIFIED

BARON, Lazar' Izrailevich, prof., doktor tekhn. nauk; TIKHOMIROVA, Vera Ivanovna, inzh.; LEDOVSKAYA, V.V., otv. red.; IVLEVA, N.P., red.; SHKLYAR, S.Ya., tekhn. red.

[Statistical analysis of indices of large-scale blasts of vertical borehole charges in open-pit mines] Opyt statisticheskogo analiza pokazatelei massovykh vzryvov vertikal'nykh skvazhinnykh zariadov v kar'erakh. Moskva, M-vo stroit. RSFSR, 1959. 33p. (MIRA 15:1)
(Blasting) (Strip mining)

BARON, Lazar Izrailevich; VLASOV, Orest Yevgen'yevich; SMIRNOV, Sergey
Anatol'yevich; TERMETCHIKOV, Marat Karimovich; LEDOVSKAYA, V.V.,
otv. red.; IVLEVA, N.P., red.; BERESLAVSKAYA, L.Sh., tekhn.
red.; GALANOVA, V.V., tekhn. red.

[Effect of the shape of the blasting charge on the results of
the explosion] Vliianie formy zariada vybrosa na rezul'tat
vzryva. Moskva, TSentr.in-t tekhn.informatsii ugol'noi pro-
myshl., 1959. 15 p. (MIRA 15:1)

(Blasting)

KHESIN, Gennadiy L'vovich; BABENKOV, Igor' Sergeyevich; IVANOV, Konstantin Ivanovich; MEL'NIKOV, Ye.A., otv. red.;
LEDOVSKAYA, V.V., red.; IVLEVA, I.P., red.

[Stress distribution in a boring instrument and in rock;
static and dynamic investigation by the photoelastic method]
Raspredelenie napriazhenii v burovom instrumente i porode;
staticheskie i dinamicheskie issledovaniia metodom foto-
uprugosti. Moskva, TSentr. nauchno-issl. in-t informatsii i
tekhniko-ekon. issledovaniu ugol'noi promyshl., 1963. 89 p.
(MIRA 17:4)

S/054/62/000/002/003/012
B163/B138

AUTORS: Ledovskaya, Ye. M., Trifonov, Ye. D.

TITLE: Application of group theory to the calculation of electronic and vibrational properties of molecules

PERIODICAL: Leningrad. Universitet. Vestnik. Seriya fiziki i khimii, no. 2, 1962, 21-37

TEXT: Two methods of constructing molecular wave functions or normal oscillations of a given symmetry are known. The first method is based on the construction of projection operators on invariant subspaces by means of characters or matrix elements of the corresponding representations. A drawback of this method is the difficulty of finding independent bases of equivalent irreducible representations. In the second method, first a set of functions is chosen, which are transformed into each other by the symmetry operations of the group considered, and then a reducing matrix is constructed. This method is complicated by the necessity of solving a system of many equations for the determination of the coefficients of the reducing matrix. By a decomposition of the reducible space of wave

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Application of group theory to the ...

S/054/62/000/002/003/012
B163/B138

functions and deviations of nuclei from their equilibrium positions into irreducible invariant subspaces, the diagonalization of the energy matrix is much simplified. A method of constructing an independent basis by means of an operator $P_{ik}^{(\alpha)}$ corresponding to an irreducible representation of the symmetry group is discussed. Two examples of the application of the method are given; the molecular orbits for the pyrene molecule and the normal oscillation modes of a quasi-molecule in an NaCl crystal are studied. The matrices of irreducible representations of point groups, which are required for the construction of the operator $P_{ik}^{(\alpha)}$, are given in an appendix. There are 13 figures and 10 tables.

SUBMITTED: February 10, 1962

Card 2/2

LEDOVSKAYA, Ye.M.

One-center approximation in calculating water molecules. Vest.
(MIRA 16:11)
LGU. 18 no.16:47-50 '63.

LEDOVSKAYA, Ye.M.; TRIFONOV, Ye.D.

Application of the theory of groups to the calculation of the
electronic and vibrational properties of molecules. Vest.LGU
17 no.10:21-37 '62. (MIRA 15:5)
(Molecular dynamics) (Groups, Theory of)

ACC NR: AP6036952 (A, IV) SOURCE CODE: UR/0181/66/008/011/3173/3176

AUTHOR: Adamov, M. N.; Ledovskaya, Ye. M.; Rebane, T. K.

ORG: Leningrad State University im. A. A. Zhdanov (Leningradskiy gosudarstvennyy universitet)

TITLE: Variational calculation of the polarizability of the F-center in alkali halide crystals (point lattice approximation)

SOURCE: Fizika tverdogo tela, v. 8, no. 11, 1966, 3173-3176

TOPIC TAGS: F center, alkali halide, variational method, ground state

ABSTRACT: In order to calculate atomic shifts and frequencies of local oscillations in crystals with defects, it is necessary to estimate the static polarizability α of the defects and ions of the crystal base; this was done both from above and from below. A variational method of the perturbation theory was used to find, in the point lattice approximation, the narrow interval in which is located the value of the polarizability of the F-center corresponding to the model potential $V(r)$. The following wave function was used to describe the ground state of the F-center:

$$\psi_{10} = \sqrt{\frac{\gamma^3}{7\pi}} e^{-\gamma r} (1 + \gamma r).$$

Optimum values of parameter γ for NaCl crystals were determined from the requirement

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ACC NR: AP6036952

of minimum energy of the electron described by this function and located in the field of a nonpolarizable point lattice with an anion vacancy. The excitation energy $\epsilon = E_{1p} - E_{1s}$ was found to be

$$\frac{1}{6} \gamma^2 \leq \epsilon \leq \frac{5}{18} \gamma^2.$$

The estimate from above gave $\alpha \geq \frac{15.523}{\sqrt{4}}$, and the estimate from below, $\alpha \leq \frac{15.556}{\sqrt{4}}$

The two sets of estimates for various alkali halide crystals are tabulated. It is concluded that the variational calculation gave a precise value of the polarizability of the ground state of the electron moving in a field with potential $V(r)$. Since, however, the model potential $V(r)$ describes the F-center only approximately, the results of the calculation may differ from the actual value of the polarizability of the F-center, being probably somewhat high. The numerical calculations were performed with a BESM-2 computer, and the program for calculating the optimum value of parameter γ was written by B. Ya. Frezinskiy. Authors are grateful to I. V. Abarenkov for discussing the work. Orig. art. has: 1 table and 11 formulas.

SUB CODE: 20/ SUEM DATE: 08Feb66/ ORIG REF: 005/ OTH REF: 003

Card 2/2

ACC NR: AP7000367 (A) SOURCE CODE: UR/0413/66/000/022/0149/0150

INVENTOR: Korzhov, V. N.; Ledovskikh, A. T.; Svoyanovskiy, V. I.; Kobylko, Ye. K

ORG: None

TITLE: A device for defrosting blocks of frozen food products. Class 53, No. 188834 [announced by the Central Design Office of the Scientific Research and Design Institute for Mechanization of the Fishing Industry (Tsentral'noye konstruktorskoye byuro nauchno-issledovatel'skogo i konstruktorskogo instituta mekhanizatsii rybnoy promyshlennosti)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 22, 1966, 149-150

TOPIC TAGS: food preservation, food product machinery, food technology

ABSTRACT: This Author's Certificate introduces: 1. A device for defrosting blocks of frozen food products, e. g. fish. The unit consists of a chain conveyor with containers for the frozen food blocks, sprinklers located above the upper branch of the conveyor, vibrators uniformly distributed along the conveyor and a bottom pan for collecting the water. Vibration of the carrier chain in the conveyor is eliminated to increase the service life of the equipment by loosely fastening the food containers to the links of the chain conveyor so that they may move in the vertical plane. The vibrator consists of a shaft with symmetrically fastened cams and connecting rods

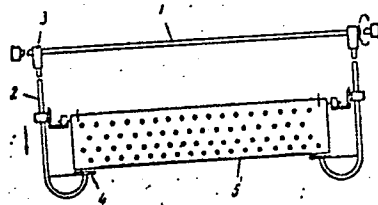
Card 1/2

UDC: 664.8.037.59.05

0930 2682

ACC NR: AP7000367

which have rings on the upper end to fit over the cams, and support plates on the lower end which interact with the base of the food container. 2. A modification of this device in which injury to the fish is prevented by making the containers in the form of perforated baskets which may be composed of unitized polyethylene sections. 3. A modification of this device designed for uniform spraying of the food blocks. The sprinklers are made in the form of a system of interconnected longitudinal and transverse troughs, the transverse units having serrated edges and being equipped throughout the entire length with plates for controlling the water level.



1--vibrator shaft; 2--connecting rods; 3--ring; 4--support plate; 5--food container

SUB CODE: 06/ SUBM DATE: 13May65

Card 2/2

Ledovskikh, A.V.

USSR/General Problems of Pathology - Inflammation.

T-1

Abs Jour : Ref Zhur - Biol., No 4, 1958, 17154

Author : Kil'pa, G.V., Ledovskikh, A.V.

Inst : -

Title : The Reaction of Chickens to Subcutaneous or Intramuscular
Injections of Turpentine.

Orig Pub : Sb. nauchno - issled. robot. stud. Stavropol'sk. s. -kh.
in-t, 1958, vyp. 4, 108-110.

Abstract : No abstract.

Card 1/1

LEDOVSKIKH, I.
LEDOVSKIKH, I.

Toward ways of efficient use of mechanisms and labor. Mor. flot 17
no.12:21-22 D '57. (MIRA 11:1)

1. Nachal'nik otдела mekhanizatsii Korsakovskogo porta.
(Loading and unloading)

YEROFEYEV, N., dots.; LEDOVSKIKH, I.; RAKHLIS, I., inzh.

Automatic recording of crane performances by means of a cyclograph.
Mor. flot 20 no.11:10-13 N '60. (MIRA 13:11)

1. Odesskoye vyssheye inzhenernoye morskoye uchilishche (for Yerofeyev).
2. Starshiy inzhener po mekhanizatsii 2-go rayona Odesskogo porta (for Ledovskikh).
3. Otdel mekhanizatsii Odesskogo porta (for Rakhlis).
(Cranes, derricks, etc.)
(Recording instruments)

LEDOVSKIKH, I., inzh.-tekhnolog

Rapid method of loading and unloading of unrefined sugar by direct variant. Mr. flot 23 no.3:10-13 Mr '63. (MIRA 16:3)

1. Odesskiy port.
(Odessa—Cargo handling) (Sugar—Transportation)

LEDOVSKIKH, L-

USSR/General Problems. Methodology. History. Scientific A
Institutions and Conferences. Instruction.
Questions Concerning Bibliography and Scien-
tific Documentation

Abs Jour : Ref Zhur-Khimiya, No 3, 1958, 6836

Author : L. Ledovskikh

Inst : Plekhanov Institute of National Economy, Moscow

Title : Plekhanov Institute of National Economy, Moscow

Orig Pub : Kholodil'naya tekhnika, 1957, No 3, 34

Abstract : To the 40th anniversary of the Great October
Socialist Revolution. Notes about the Insti-
tute activities, in particular in the region
of refrigeration technology.

Card 1/1

LEDOVSKIKH, S.

Moscow Institute of National Economy. Khol.tekh. 34 no.3:34
Jl-S '57. (MIRA 10:10)

(Moscow--Technical education)

LEDOVSKIY, S.I.

PHASE I BOOK EXPLOITATION

270

Moscow. Institut narodnogo khozyaystva im. G.V. Plekhanova

Sbornik nauchnykh rabot, vyp. 11 (Collection of Scientific Papers,
No. 11) Moscow, Gostorgizdat, 1957. 237 p. 1,000 copies
printed.

Sponsoring agency: Ministerstvo trgovli SSSR

Ed.: Kuznetsova, S.Yu.; Tech. Ed.: Balashov, V.I.

PURPOSE: The book brings together some studies of various aspects
of Soviet industrial economics.

COVERAGE: The authors in a series of articles discuss and review
some basic economic aspects of Soviet industry and
agriculture, and the material and cultural attainments
of the past forty years. The authors are faculty members
of the Moskovskiy institut narodnogo khozyaystva im.
G.V.Plekhanova (Moscow Institute for National Economy im.
G.V.Plekhanov).

Card 1/6

Collection of Scientific Papers, No. 11

270

TABLE OF
CONTENTS:

Kaminskiy, Ya.A., Docent. Problems and Means of Technical
Progress of Soviet Trade

3

There are 9 Soviet references.

Ledovskikh, S.I., Docent. On the Prospective Problem of
Interregional Transport of Commercial Grain from Siberia

21

There are 3 Soviet references.

Grave, K.A., Professor. On the Agreement in Retail
Installment Buying and Selling

37

There are 6 Soviet references.

Card 2/6

Collection of Scientific Papers, No. 11

270

Druzhinin, N.K., Professor. Statistics as a Science: Ideas of Russian Statisticians of the Second Half of the 19th and the Beginning of the 20th Century

49

There are 30 pre-1917 and 4 Soviet references.

Arkhangel'skiy, N.A., Professor. Air Permeability of Textile Fabrics

70

There are 11 references, of which 7 are Soviet, 3 English, and 1 German.

Lobanov, D.I., Professor, and Uspenskaya, N.R., Candidate of Technical Sciences. Chemical Composition and Organoleptic Properties of Meat Bouillons, Prepared According to Recipes Recommended for Public Food Catering Enterprises

90

There are 11 references, of which 6 are Soviet, 3 German, 1 English, and 1 a translation from the German.

Card 3/6

Collection of Scientific Papers, No. 11

270

Vyshelesskiy, A.N., Professor. New Techniques in Public Food
Catering Enterprises in the Sixth Five-Year Plan 102

There is one Soviet reference.

Gryuner, V.S., Professor. On Improving Quality and Widening
Selection of Confectionaries 116

There are 26 Soviet references.

Smirnov, V.S., Professor; Salun, I.P., Docent; Mudretsova-
Viss, K.A., Docent; Basmanova, Ye.V., Kreshtapova, N.A.,
Nadezhnova, L.A., Avdeyeva, L.I., laboratory assistants.
On the Quality of Second Grade Wheat Flour 114

There are 4 Soviet references.

Card 4/6

Collection of Scientific Papers, No. 11

270

Kozin, N.I., Professor, and Lavachev, L.N., Candidate of Technical Sciences. Investigation of Acid-Resistant Samples of Concrete Stored in Contact with Various Liquid Oils 160

There are 9 references, of which 7 are Soviet, 1 German, and 1 French.

Kozin, N.I., Professor; Sitnikov, Ye.N.; Yershova, O.A. On the Problem of the Nutritive Quality of Fat in Relation to its Fatty Acid Composition (First Report: "Study of the Diffusion Process of Individual Fatty Acids Through a Semi-permeable Membrane") 176

There are 3 references of which 1 is Soviet and 2 English.

Kolesnik, A. A., Docent, and Kremlev, M.M., Candidate of Technical Sciences. Change in Chemical Composition During Ripening of Grape Varieties Developed by Michurin 197

There are 1 pre-1917 and 19 Soviet references.

Card 5/6

Collection of Scientific Papers, No. 11

270

Kozlov, V.V., Professor, and Solntseva, R.R., Candidate of Technical Sciences. Photoelectric Colorimetry of Acid Azo Dye Solutions as an Objective Method of Determining Their Concentration

220

There are 31 references of which 27 are Soviet, 2 are translations from English, 1 is English, and 1 is German.

AVAILABLE: Library of Congress

Card 6/6

VK/vm
June 12, 1958

LEDOVSKIKH, S. I.

AUTHOR: Ledovskikh, S.I., Dotsent, Deputy Director of the 3-5-20/38
Moscow Institute of National Economy imeni G.V. Plekhanov

TITLE: The 50th Anniversary of the Moscow Institute of National
Economy (Pyatidesyatiletiye Moskovskogo instituta narodnogo
khozyaystva)

PERIODICAL: Vestnik vysshey shkoly, 1957, Nr 5, pp 60-61 (USSR)

ABSTRACT: The author states that the Moscow Institute of National
Economy imeni G.V. Plekhanov, celebrated its 50th anniversary.
He describes the history of the institute, which is one of
the most important VUZes, where highly qualified engineers
and economists are trained. In the 20's the institute devel-
oped to such an extent that the organization of 7 VUZes became
necessary. The following still exist: The State Institute
of Economics (Gosudarstvennyy ekonomicheskiy institut), the
Transport-Economic Institute (Transportno-ekonomicheskiy
institut), the Technological Institute of the Food Industry
(Tekhnologicheskiiy institut pishchevoy promyshlennosti). The
Electro-Industrial Faculty (Elektropromyshlennyy fakultet)
was transferred to the MVTU imeni Bauman. As a result of
the reorganization of the Moscow Institute there remained the
Trade-Economics Faculty (Torgovo-ekonomicheskiy fakultet),
the Accounting-Economics Faculty (Uchetno-ekonomicheskiy

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The 50th Anniversary of the Moscow Institute of National Economy 3-5-20/38

fakultet), and the Faculty of Science of Commodities (Tovarovednyy fakultet).

The Moscow Institute of Public Nutrition (Moskovskiy institut obshchestvennogo pitaniya) during the 50 years of its existence trained more than 19,000 specialists. The training of a scientific-pedagogical staff through post-graduate courses is also done here; during the 5th Five-Year-Plan 130 post graduate students defended here their theses. At present more than 5,000 undergraduate students are in attendance. The teaching staff numbers 320. The number of students of Technology and Science of Goods has increased from 1,785 in 1954, to 2,435 in 1957. The institute has a good technical material base. Its laboratories are systematically supplied with new refrigeration and technological equipment.

Special care is given to the student's practical training. The institute is considered to be an important scientific center in the field of development and accomplishment of Soviet trade.

The Institute of National Economy is an important centre of Soviet trade. Its chairs performed a series of valuable researches relating to science of goods, economy of Soviet trade, theoretical and practical problems of the turnover

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The 50th Anniversary of the Moscow Institute of National Economy 3-5-20/38

of goods in USSR; the planning of a trade network, organization of storage economy and legal regulation of trade.

The teaching collective of the institute considers that an engineer-technologist or a specialist of the science of goods must also have a good knowledge of chemistry and physics. This idea was founded by the great national scientists N.A. Shilov, N.A. Izgaryshev, V.A. Naumov, V.S. Galevich and the physicists A.V. Tsinger, A.A. Eykhenval'd, N.Ye. Uspenskiy.

The Chair of Science of Nutritious Goods and the Chair of Physics together with the workers of the Moscow Fish Combine elaborated a new method of fish-smoking with the aid of infrared radiation and ultra-sonic oscillation. Investigations were also made in the storage of fruit and vegetables, the excessive settling of tissues, and the durability of preserves in tins. The teaching staff is also very busy with the organization of manuals and instructive literature. Student's research work increased considerably. About 800 students are working in groups together with the chairs. On the day of its anniversary the institute was decorated with the Order of Labor and the Red Banner.

Card 3/4

The 50th Anniversary of the Moscow Institute of National Economy 3-5-20/38

ASSOCIATION: The Moscow Institute of National Economy imeni G.V. Plekhanov
(Moskovskiy institut narodnogo khozyaystva imeni G.V.Plekhanova)

AVAILABLE: Library of Congress

Card 4/4

ANDREYEV, B.I.; VORONTSOVA, A.N.; DANILOV, A.D.; KISTANOV, V.V.;
KOSTENNIKOV, V.M.; KUSHNER, A.I.; LEDOVSKIKH, S.I.;
LESNOV, M.F.; MALINOVSKIY, E.P.; MOSHKOVA, N.V.; MUKHEIN,
G.I.; PASHKEVICH, V.I.; RZHEVUSKAYA, D.M.; SAVCHENKO, N.A.;
SKOBEYEV, D.A. [deceased]; LISOV, V.Ye., red.;
SAZANOVICH, N.K., red.

[Economic regions of the U.S.S.R.] Ekonomicheskie raiony
SSSR. Moskva, Ekonomika, 1965. 589 p. (MIRA 18:6)

1. Moscow. Institut narodnogo khozyaystva. 2. Kafedra
ekonomicheskoy geografii Moskovskogo instituta narodnogo
khozyaystva im. G.V.Plekhanova (for all except Lisov,
Sazanovich).

ANDREYEV, Boris Ivanovich; LEDOVSKIKH, Stepan Ivanovich; RABINOVICH, Isaak Yevgen'yevich; SOKOLOV, M.N., retsenzent; SHIBANOVA, A.A., red.; PODOL'SKAYA, M.Ya., red.kart; KREYS, I.G., tekhn. red.

[Essays on economic geography: Austria, the German Federal Republic, and Switzerland] Ocherki ekonomicheskoi geografii: Avstriia, Federativnaia Respublika Germanii, Shveitsariia. Moskva, Uchpedgiz, 1963. 229 p. (MIRA 17:2)

BARSOV, Nikolay Nikolayevich, dotsent, kand.geograf.nauk; BONIFAT'YEVA, Lidiya Ivanovna, dotsent, kand.geograf.nauk; BURENKO, Sergey Fedorovich, dotsent, kand.geograf.nauk; GITLITS, Semen Aleksandrovich, dotsent, kand.ekonom.nauk; GUREVICH, Priam Vladimirovich, prof.; DARINSKIY, Anatoliy Viktorovich, dotsent, kand.geograf.nauk; DOLININ, Aleksey Arkad'yevich, dotsent, kand.geograf.nauk; DOROSHKEVICH, Lyudmila Ivanovna, dotsent, kand.geograf.nauk; YEFIMOVA, Yelena Semenovna, kand.geograf.nauk; LAVROV, Sergey Borisovich, dotsent, kand.geograf.nauk; LEDOVSKIKH, Stepan Ivanovich, dotsent, kand.geograf.nauk; NEVEL'SHTEYN, Grigoriy Solomonovich, dotsent, kand.geograf.nauk; NIKOLAYEVA, Nadezhda Vasil'yevna, dotsent, kand.geograf.nauk; OGAIKSOV, Vladimir Artem'yevich, kand.geograf.nauk; PINKHENSON, Dmitriy Moiseyevich, dotsent, kand.geograf.nauk; POSPELOVA, Nataliya Georgiyevna, prof., doktor ekonom.nauk; SEMEVSKIY, Boris Nikolayevich, prof., doktor geograf.nauk; SUTYAGIN, Pavel Grigor'yevich, dotsent, kand.geograf.nauk; SHTEYN, Viktor Moritsovich, prof., doktor ekonom.nauk; YEROFEYEV, I.A., red.; SMIRNOVA, N.P., red.; TYUTYUNNIK, S.G., red.kart; BORISKINA, V.I., red.kart; KOZLOVSKAYA, M.D., tekhn.red.

[Economic geography of foreign countries; student manual] Ekonomicheskaya geografiya zarubezhnykh stran; posobie dlia studentov. Moskva, Gos.uchebno-pedagog.izd-vo M-va prosv.RSFSR, 1960. 702 p. # maps (MIRA 13:12)

(Geography, Economic)

ANDREYEV, B.I.; BORISOV, I.G.; LEDOVSKIY, S.I.; MALINOVSKIY, E.P.; SAV-
CHENKO, N.A.; LYUDSKOV, B.P., red.; EL'KINA, E.M., tekhn. red.

[Geography of the manufacture of food products in the U.S.S.R.]
Geografiia proizvodstva prodovol'stvennykh tovarov SSSR. By B.I.
Andreyev i dr. Moskva, Gos. izd-vo torg. lit-ry, 1961. 170 p.
(MIRA 14:10)

(Food industry)

ANDREYEV, B.I.; ~~LEDOVSKIKH, S.I.~~; MALINOVSKIY, E.P.; SAVCHENKO,
N.A.; SKOBEYEV, D.A.; TARANENKO, Ye.A.; SERGEYEVA, A.S.,
tekhn. red.

[Distribution of light industry of the U.S.S.R.] Razmeshche-
nie otraslei legkoj promyshlennosti SSSR. Moskva, In-t narod-
nogo khoz., 1963. 136 p. (MIRA 16:9)

1. Prepodavateli kafedry ekonomicheskoy geografii Moskovskogo
instituta narodnogo khozyaystva im. G.V.Plekhanova (for all
except Sergeyeva).

(Russia--Manufactures) (Industries, Location of)

LEDOVSKIKH, S.I.; SERGEYEVA, A.S., tekhn. red.

[The Federative Republic of Germany; brief survey of
economic geography] Federativnaia Respublika Germanii;
kratkii ekonomiko-geograficheskii obzor (uchebnoe po-
sobie). Moskva, 1962. 32 p. (MIRA 16:7)

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(Germany, West--Economic geography)

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(FLAX)

(WEED CONTROL)

(ACETIC ACID)

ACC NR: AP7005232

(A)

SOURCE CODE: UR/0145/66/000/009/0103/0107

AUTHOR: Koval', I. A. (Candidate of technical sciences); Sandomirskiy, M. G. (Candidate of technical sciences); D'yachenko, V. G. (Candidate of technical sciences); Ledovskiy, V. I. (Engineer)

ORG: Kharkov Institute of Mechanization and Electrification of Agriculture
(Khar'kovskiy institut mekhanizatsii i elektrifikatsii sel'skogo khozyaystva)

TITLE: Some results from an investigation of the working process of a tractor diesel during operation on diesel fuel and gasoline

SOURCE: IVUZ. Mashinostroyeniye, no. 9, 1966, 103-107

TOPIC TAGS: diesel engine, tractor, engine fuel system, diesel fuel, gasoline

ABSTRACT: The authors study the effect of two-phase fuel input on the dynamics of the combustion process and on the indicated characteristics of diesel engines as a basis for developing multifuel engines. A single-cylinder section of the SMD-14N tractor engine was studied with operation on diesel fuel and A-66 gasoline using two fuel pumps so that the fuel may be fed into the combustion chamber or intake accumulator in any phase with respect to TDC. Fuel feed into the intake accumulator was fixed to give constant delivery at a crankshaft speed of 178 rad/sec. With a variation in load-

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UDC: 621.436

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ing at constant crankshaft velocity, the relative quantity of additional fuel ϕ was varied by changing the quantity of primary fuel fed into the combustion chamber: $\phi = G_{add} / (G_{rel} + G_{add}) 100\%$. It was found that if small quantities of additional fuel are fed into the intake accumulator ($\phi = 10-15\%$ for diesel fuel and $15-20\%$ for gasoline) efficiency is not adversely affected under heavy loading by a considerable reduction in the rigidity of engine operation (the pressure buildup rate may be reduced to $2 \cdot 10^5 - 3 \cdot 10^5 \text{ N/m}^2 \cdot \text{deg}$ with operation on diesel fuel and to $8 \cdot 10^5 - 9 \cdot 10^5 \text{ N/m}^2 \cdot \text{deg}$ with operation on gasoline). The use of composite fuel feed reduces maximum combustion pressure by $2 \cdot 10^5 - 4 \cdot 10^5 \text{ N/m}^2$. The results of this study indicate the theoretical possibility for using fuel with a low cetane number to achieve economic indices presently realizable only with operation on fuel with a high cetane number. Orig. art. has: 4 figures.

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Card 2/2

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incontinence, surg., indic. & technic (Cz))